

# Белорусский государственный университет информатики и радиоэлектроники

Научно-исследовательская часть

## Announcement BSUIR invites you to the Science Festival

September 6, 2025 11:00 — 19:00 Central Botanical Garden, 2V Surganova St., Minsk



This is the largest popular science event in Belarus. Since 2018, it has become a large-scale event that introduces Minsk residents and guests of the capital with the latest developments

of scientists and helps to gain new knowledge about the world of science and technology. It is an opportunity for everyone to meet a scientist and get a personal answer to a question of interest. The Science Festival is held with the support of the National Academy of Sciences of Belarus and the Ministry of Education of the Republic of Belarus. For more information, visit: https://scifest.by.



The festival programme includes themed venues, popular science lectures, exhibitions, interactive scientific experiments and master classes for visitors of all ages and interests.

The main venues this year will be: "University of the Future", "Space", "Medicine", "Intelligent Technologies", "Ecology", "Taste of Science", "Laboratory", "ATOM TEAM" and "SCIENCE 0+".

Also during the festival an **exhibition-competition "100 Innovations of Young Scientists"** will take place, where the latest developments

of the Belarusian young scientists will be presented and the competition committee will determine the most promising of them.

## BELARUSIAN STATE UNIVERSITY OF INFORMATICS AND RADIOELECTRONICS WILL TAKE PART IN THREE EXPOSITIONS:

"University of the Future"

"100 Innovations of Young Scientists"

"Intelligent Technologies"

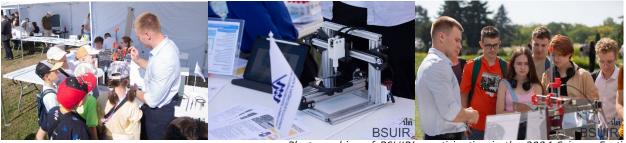


Photo archive of BSUIR's participation in the 2024 Science Festival

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#### UNIVERSITY OF THE FUTURE

Developments by students of the Minsk Radioengineering College, a branch of the university:

## An air quality monitoring system

Designed to measure environmental parameters such as temperature, humidity, atmospheric pressure, PM2.5 dust particle concentration, and a wide range of gases in the air (natural gases, carbon dioxide and carbon monoxide, hydrocarbons, smoke). The data obtained is displayed in a specially developed mobile application.

## A smart bag

The built-in RFID object identification system and mobile app synchronised with the system allow the user to quickly check the presence/absence of specific items inside the bag. In addition, the app displays the last location of the bag and has a search mode, which, when activated, causes the bag to emit an audible signal.

### A safe road-crossing system

It is a set of devices designed to automatically detect moving objects (pedestrians and animals) and promptly warn vehicle drivers of their presence on the road. It helps to reduce the risk of accidents, improve road safety and is indispensable at unsignalised intersections and motorways.

#### INTELLIGENT TECHNOLOGIES

## Developments by the BSUIR Student R&D Laboratory:

### A prototype of an industrial robot with a unique tool changing system

The prototype of the industrial robot demonstrates the basic principles of modern automated systems. It is equipped with four degrees of freedom, and its main feature is a unique tool changing system developed specifically for this project. This system allows the robot to quickly change working attachments, which significantly expands the range of tasks and increases production flexibility. Unlike standard models, this prototype is capable of instantly adapting to new tasks without complex retooling.

## A programmable power supply unit

It is designed for precise power supply to electronic circuits with the possibility of software adjustment of output parameters. It is used for accurate testing, debugging and tuning of complex electronic circuits and devices.

It is suitable for working with sensitive electronics and microcircuits, where it is important to minimise fluctuations and deviations from the specified parameters.

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#### 100 INNOVATIONS OF YOUNG SCIENTISTS

## A special vest



that protects people from exposure to electromagnetic radiation in the microwave range.

Distinctive features:

- $\bullet$  electromagnetic radiation transmission coefficient in the microwave range: up to -40~dB;
- protection against IR radiation (electromagnetic radiation reflection coefficient in the IR wavelength range over 70.0%).

Other events involving BSUIR will also take place as part of the Science Festival:

Master class "Microelectronics under the microscope" (University of the Future venue)

Time: 12:40 - 13:10.

Festival participants will have the opportunity to study the structure of modern microelectronic components, such as chips and smartphone screens, using microscopy equipment.

## Master class (Intelligent Technologies venue)

on assembling electronic circuits for devices based on the "Znatok" electronic construction set.

Lecture: "Artificial intelligence without myths: trends, technologies, and where to start" (Intelligent Technologies venue)

Time: 12:00 - 12:45.

Hosted by Mikhail Kovalev, Master of Technical Sciences, Senior Lecturer at the Academic Department of Intelligent Information Technologies of BSUIR.

We invite you to visit the Science Festival and participate in interesting activities organised by BSUIR!

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